

a population of an interesting species of genus *Murdannia* at Thirumullaivoyal (04.ii.2010, 13° 12' 50" N; 80° 11' 49" E), on the banks of Red Hills lake, Chennai, Tamil Nadu (India) growing in a marshy area, 28 m above msl. After critical observation and referring available literature, the specimen was found to be *Murdannia striatipetala* Faden [MDN 204 (SUK)].

Murdannia striatipetala is a dazzling but little known species of southern India. It was described by Faden (2001) based on his earlier collection from Jaffna, Sri Lanka, in 1977. According to him, *M. striatipetala* is closely related to *M. spirata*, but characters such as definite base, narrow leaves, dark-veined petals, and short appressed hairs on the stamen and filaments had made it distinct. In addition, restricted habitat of *M. striatipetala* against widespread habitat of *M. spirata* was notable. Inflorescence of *M. dimorphoides* closely resembles *M. striatipetala*.

Contrasting dark-veined petals are also characteristic of *Murdannia spirata* (L.) Bruckner var. *parviflora* Faden (endemic to Sri Lanka, Faden 2001), but it differs from *M. striatipetala* by characters like indefinite base, flower c. 10-12 mm wide, stamen dimorphism, enantiostyly, lateral embryotega, etc. The distribution of this species was reported to be northern Sri Lanka and southern India, which Faden widened on the basis of earlier collections from India. He designated Indian collection as paratypes for *M. striatipetala* [Paratypes: INDIA: Districts unknown: Tambaram district, Chennai, Barnes 716 (K), 717 (K); Tada, Bourne 2784 (K); Nungambakam, 15.xi.1899, Bourne (from K. Rungachari) s.n. (K); Chingput, Guindy, 1885, Lawson s.n. (K)] (Faden 2001). However, the deposition made earlier was not appropriately treated, while some were without names.

After detailed examination of specimen from mentioned locality and comparing the account by Faden, the authors observed that *Murdannia striatipetala* resembles *M. spirata* in vegetative forms except dark-veined petals. But short-lived flowers lasting for only few hours may be the reason for confusion of *M. striatipetala* with *M. spirata* resulting into negligence of species by post Bourne workers on Indian Commelinaceae.

All the paratypes were collected from Tamil Nadu state of India, namely Tambaram, (Kanchipuram district); Tada, (Nellore district); Nungambakkam and Guindy (Chennai district). Our present locality is at a distance of 25-60 km from all the above localities and elevation is not more than 28 m above msl. This additional data on its distribution confirms the noteworthy comments on the distribution of *Murdannia striatipetala* in southern India by Faden (2000).

Apart from the earlier collections by some workers, namely Barnes, Bourne, Rungachari and Lawson (1885-1899), the species is surprisingly neglected by descendants till date. *Murdannia striatipetala* is reported to be collected after a lapse of 111 years from southern India after Barnes and Bourne (1899). This species has not been included in any publication after Faden's identification. So the present work stands as the first proposal for the addition of *M. striatipetala* to Indian flora.

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9. *JUNCUS BUFONIUS* L. – AN ADDITION TO THE FLORA OF MAHARASHTRA, INDIA

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Introduction

The genus *Juncus* comprises of about 300 species (Mabberley 2002) varying from dwarf ephemeral annuals to

large tufted or rhizomatous perennials. In India, the genus is represented by 44 species and 5 varieties (Karthikeyan et al. 1989). Two species of *Juncus* are so far reported for the state

of Maharashtra, namely *Juncus maritimus* Lam. and *J. prismatocarpus* R.Br. (Shimpale 2008). The present paper reports *J. bufonius* L. from Tableland, Panchgani, in Satara district of Maharashtra. Description and nomenclature of the species along with a note are given for easy identification. The voucher specimens are deposited at the Herbarium of Botany Department, Shivaji University, Kolhapur (SUK).

Juncus bufonius L., Sp. Pl. 328. 1753; Hook. f., Fl. Brit. India 6: 392. 1892; Fl. Upper Gangetic Plain 3: 282. 1920; C.E.C. Fisch. in Gamble, Fl. Pres. Madras 3: 1553. 1928; Backer., Fl. Males. Ser 1. 4: 212, 1948; C.D.K. Cook, Aqua, & Wetl. Pl. India 223, f. 230, a & b. 1996; Tiagi & Aery. Fl. Rajasthan. 534-535. 2007.

Erect annual herb. Stems terete, up to 25 cm high, glabrous, striated, yellow-green. Leaves reduced to basal cataphylls, 5-12 cm long, 1-2 mm wide. Inflorescence a drepanium, 3-9 cm long; flowers small, 1-3 mm across, solitary, bracteate; bract 1, sheathing, open. Bracteoles 2. Tepals 6, free, lanceolate, straw-brown, keeled (outer tepals only) with a thickened midrib and scarious margin; outer tepals 4 mm long, exceeding inner tepals; inner tepals 3.5 mm long. Stamens 3, shorter than outer tepals; filament 0.9-1 mm long, hyaline; anthers 0.3-0.5 mm, hyaline. Ovary

1.8-2 mm long, ovoid, trigonous, hyaline; style trifid, 0.2-0.3 mm long, cylindric, brown. Capsule 3-locular, slightly shorter than tepals, ellipsoid, dark brown, shortly apiculate. Seeds 0.4-0.5 mm long, obovoid, yellowish-brown.

Flowering and Fruiting: September-March.

Distribution: INDIA: Himachal Pradesh, Delhi, Rajasthan, Sikkim, Maharashtra; temperate and warm regions of Eurasia and America; Sri Lanka; Bhutan; Nepal and Pakistan.

Specimens examined: INDIA, Maharashtra, Satara district, Panchgani, Tableland, 29.ix.2010, Lekhak-3896 (SUK).

Latitude and Longitude: 17° 55' N; 73° 48' E. Altitude: 1,413.96 m above msl.

Note: An erect herb that grows in seasonal ponds at Tableland in Panchgani. The typical associates were *Dopatrium junceum*, *Eriocaulon* spp., *Isachne* spp., *Oryza rufipogon*, *Rotala densiflora*, *Schoenoplectus* sp., and *Sopubia delphinifolia*.

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10. ADDITIONS TO THE FLORA OF SIMILIPAL BIOSPHERE RESERVE, ORISSA, INDIA

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Introduction

The concept of Biosphere Reserve was initiated by the UNESCO in 1970 as a global measure to promote *in situ* conservation of biological resources with the purpose of human welfare and sustainable development. Representative areas of natural and cultural landscapes, extending over terrestrial and coastal / marine ecosystems, with appropriate zoning pattern, resource base and management mechanisms have been designated as Biosphere Reserve. This approach is an effective mean of protecting the landscape along with

its biodiversity. So far, 15 Biosphere Reserves have been established in India across different biogeographical regions. Similipal in Orissa was notified as the 8th Biosphere Reserve in June 1994, as the representative ecosystem under the Mahanadian biogeographic region in the eastern end of the Central plateau and Eastern Ghats of tropical eastern India. However, Similipal shares biotic features of all the four biotic provinces – Eastern plateau, Chhotanagpur, Lower Gangetic plain and East coast line – for which Orissa is the junction. Similipal Biosphere Reserve has a unique assemblage of a